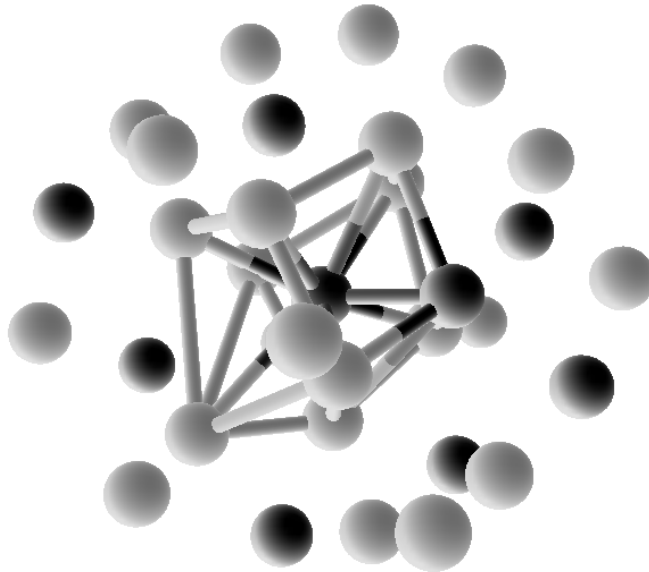


PROGRAM
of
9th INTERNATIONAL CONFERENCE
«PHYSICS OF DISORDERED SYSTEMS»



September 19-20, 2023

LVIV, UKRAINE

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September 19 (Tuesday)

9⁰⁰-10⁰⁰ **Registration:**
Ivan Franko National University, Department of Metal Physics
8, Kyrylo and Mephodiy Str.,
Room 213

10⁰⁰-10³⁰ **Opening ceremony:**
Department of Metal Physics 8, Kyrylo and Mephodiy Str.,
B/Φ auditorium

10³⁰-12³⁰ **Plenary session:**
Department of Metal Physics 8, Kyrylo and Mephodiy Str.
B/Φ auditorium

13⁰⁰-14³⁰ **Lunch break**

14³⁰-16³⁰ **Poster session & Coffee discussion**
Department of Metal Physics 8, Kyrylo and Mephodiy Str.,
18 auditorium

18⁰⁰-20⁰⁰ **An Evening Walk in Lviv**

September 20 (Wednesday)

10⁰⁰-11³⁰ **Plenary session:**
Department of Metal Physics 8, Kyrylo and Mephodiy Str.,
B/Φ auditorium

11³⁰-12⁰⁰ **Coffe break**

12⁰⁰-13⁰⁰ **Plenary session:**
Department of Metal Physics 8, Kyrylo and Mephodiy Str.,
B/Φ auditorium

13³⁰-14⁰⁰ **Closing ceremony**
Department of Metal Physics 8, Kyrylo and Mephodiy Str.,
B/Φ auditorium

September 19 (Tuesday)

- 9⁰⁰-10⁰⁰ **Registration**
- 10⁰⁰-10³⁰ **Opening ceremony**
- 10⁰⁰
- Welcome speech
Roman Gladyshevskii
- 10¹⁵
- Welcome speech
Yaroslav Chornodolskyy
- 10³⁰-12³⁰ **PLENARY SESSION (B/Φ auditorium)**
- Chairperson** – Mudryy Stepan
- 10³⁰
- Computer simulations – an efficient tool for deeper understanding of experimental data of metallic melts structure.
Shtablavyi Ihor
- 10⁴⁵
- Badanie struktur wtórnych na powierzchni tarcia powłok eutektycznych układu Fe-Mn-C-B-Si-Ni-Cr
Pashechko Mykhailo
- 11⁰⁰
- Crystallization of FeBSi metallic glasses annealed in an isothermal and non -isothermal way and characterized by electrical resistivity and absolute thermoelectric power. (online)
Gasser Jean-Georges
- 11¹⁵
- Hybrid solder joints: Study of the thermophysical properties of solder flux with minor additions of Fe nanoparticles (online)
Yakymovych Andriy
- 11³⁰
- The structure of ternary Al_{80-x}M₂₀Sn_x (M=Fe, Co, Ni) melts (online)
Roik Oleksandr
- 11⁴⁵
- Ab initio molecular dynamics simulation of Co-Sn melts (online)
Muratov Alexey
- 12⁰⁰
- Synthesis of ZnO photocatalyst (online)
Klimenkov Oleksii
- 12¹⁵
- Modeling of the electrical response of random heterogeneous systems: A hard core – inhomogeneous penetrable shell model
Sushko Myroslav
- 13⁰⁰-14⁰⁰ **Lunch break**
- 14³⁰-16³⁰ **Poster sessions & Coffee discussion (18 auditorium)**
- Chairperson** – Shtablavyi Ihor
- 18⁰⁰-20⁰⁰ **An Evening Walk in Lviv**

September 20 (Wednesday)

10⁰⁰-11³⁰ **PLENARY SESSION** (*B/Φ auditorium*)

Chairperson – Pashechko Mykhailo

- 10⁰⁰ • Effect of metal deposited nanoparticles on microstructure and shear strength of lead-free solder joints (online)
Plevachuk Yuriy
- 10¹⁵ • Modification of the structure of amorphous metal alloys using laser processing methods
Nykyrui Yulia
- 10³⁰ • Phenomenological generalizations of conventional quantum statistical distributions
Rovenchak Andrij
- 11⁴⁵ • Heat capacity and thermal expansion: analyzing of atomic, molecular crystals and carbon nanostructure systems (online)
Barabashko Maksym
- 11⁰⁰ • Thermal Conductivity Analysis for Disordered Crystals: contemporary view (online)
Horbatenko Yuliia
- 11¹⁵ • Entanglement Entropy of Free Disordered Fermions (online)
Pastur Leonid

11³⁰-12⁰⁰ **Coffe break**

12⁰⁰-13¹⁵ **PLENARY SESSION** (*B/Φ auditorium*)

Chairperson – Shtablavyi Ihor

- 12⁰⁰ • Atomic structure and kinetics of phase formation in an amorphous metal alloy Ni_{83.7}Fe₃Cr₇Si_{4.5}B_{2.8} during heating.
Korolyshyn Andry
- 12¹⁵ • Dicke model as a disordered system (online)
Lyagushyn Serhiy
- 12³⁰ • Calculation of the speed of sound in liquid Fe at high pressures via molecular dynamics simulations
Demchuk Taras
- 12⁴⁵ • Critical behavior of systems with long-range interactions and structural disorder
Shapoval Dmytro
- 13⁰⁰ • One-dimensionally confined water and ammonia molecules in single-wall carbon nanotubes
Krasnov Volodymyr

13³⁰-14⁰⁰ **Conference Conclusion and Closing**

14³⁰-16³⁰

POSTERS (18 auditorium)

Chairperson – Shtablavyi Ihor

- P.001 • Magnetocapacitance Effect in Tunnel Contact with Perpendicular Anisotropy of Magnetic Electrodes
Krupa Mykola
- P.002 • Thermodynamic quantities of Morse fluids in the supercritical region
Dufanets Marta
- P.003 • Some features of preparation 2D functional materials
Tsizh Bohdan
- P.004 • Influence of the state of the c atoms on the crystal structure of martensite of carbon steels
Lobodyuk Valentyn
- P.005 • Dielectric properties changing at the impurity additions and ageing in selenium-based glasses
Horvat Andrew
- P.006 • Structural transformations and conductivity of Ni films
Rashkovetskyi Lyubomyr
- P.007 • The effect of 1 MeV electron irradiation on the array of graphene quantum dots in reduced graphene oxide in a wide temperature range of 4.2–300 K
Rudenko Roman
- P.008 • Nanocrystallization of amorphous alloys under the action of irradiation with argon ions
Tsaregradska Tetiana
- P.009 • Collective Leggett mode in disordered two-phase superconducting ceramics
Shamaev Vitalii
- P.010 • Clusterization in solutions as a process of mesophase formation
Vergun Liena
- P.011 • Synthesis and band gap of ZnO/TiO₂ nanocomposites
Hutsul Khrystyna
- P.012 • Pseudo JahnTeller Cooperative Ordering in KEr(MoO₄)₂ Induced by external magnetic fields up to 30 T
Nesterenko Nina
- P.013 • Phase transition at critical bending of a magneto-active elastomer beam
Bodnaruk Andrii
- P.014 • Electric field impact on the electrocaloric and dielectric response of the ferroelectric BaTiO₃ □– WS₂ – Ag nanocomposites
Bodnaruk Andrii
- P.015 • Bending-induced states in thin layers of van der Waals ferrielectrics
Bodnaruk Andrii

- P.016 • Polar and electrophysical properties of the nanostructure “graphene on a Janus compound ultrathin film”
Bodnaruk Andrii
- P.017 • Energy band gap and optical properties of CdTe spherical quantum dots calculated by DFT
Kashuba Andrii
- P.018 • Features of NiC formation at mechanical alloying of the equimolar Ni-CNT and Ni-Graphite mixtures
Kuryliuk Alla
- P.019 • Phase behavior of ionic liquids in ultranarrow inhomogeneous slit pore
Dudka Maxym
- P.020 • Плазмони в металевих стрижнеподібних наночастинках із періодично модульованою бічною поверхнею
Korotun Andrii
- P.021 • Вплив розміру і властивостей шару діелектрика на поверхневий плазмонний резонанс в 1D-структурах
Karandas Yan
- P.022 • Плазмонні заборонені зони в нанокompозиті з хаотично розташованими металевими сфероїдальними включеннями
Pavlyshche Nazar
- P.023 • Швидкість загасання поверхневих плазмонних резонансів у сферичних металевих оболонках змінної товщини
Malysh Roman
- P.024 • Ga-Ge-Te alloys: structural properties
Popovych Mykhailo
- P.025 • Ionic conductivity in single-crystalline and amorphous lithium germano-germanates
Trubitsyn Mykhailo
- P.026 • Effect of lattice disorder on charge transfer in PbMoO₄ single crystals
Bochkova Tatiana
- P.027 • Structural transformations and optical properties of silicon oxide films doped with tin
Voytovych Vasyl
- P.028 • Nanostructuring of the monocrystalline silicon surface under the action of laser pulses
Mohylyak Ivan
- P.029 • Peculiarities of tape amorphous alloys surface properties
Hertsyk Oksana
- P.030 • Multi-walled carbon nanotube network on porous silicon for humidity sensing
Olenych Igor
- P.031 • Electronic properties of Mn²⁺ doped β-LiNH₄SO₄ crystals

- Shchepanskyi Pavlo*
- P.032 • Photoelastic parameters of doped potassium sulfate
Shchepanskyi Pavlo
- P.033 • Study of fluid H₂ under high pressure: A Generalized collective mode approach
Ilenkov Iliia-Mykola
- P.034 • Laser-induced transformations in thermally evaporated thin TlInSe₂ films studied by Raman spectroscopy
Azhniuk Yuriy
- P.035 • Edge Luminescence of CsPbCl₃ Doped Single Crystals
Demkiv Taras
- P.036 • The dependence of electrical and thermoelectric properties of solid solutions AgSbSe₂-PbSe on their composition
Novosad Oleksii
- P.037 • Structure and mechanical properties of rapidly solidified Zr-Ni-Cr-(Al)-Ag alloys
Shved Olena
- P.038 • Structure and Electrical Properties of β -Ga₂O₃ Films Obtained by Radio Frequency Magnetron Sputtering on template Si/porousSi/Si
Kidalov Valeryu
- P.039 • Magnetoresistance and Hall effect caused by Berry curvature in Sr₂FeMoO₆ double perovskite
Konoplyuk Sergiy
- P.040 • Molecular dynamics simulations of the surface structure of materials in liquid and solid-liquid state.
Shtablavyi Ihor
- P.041 • The trimers and dimers states in population-imbalanced fermion system
Panochko Galyna
- P.042 • Phase formation in the amorphous Fe₈₀B₂₀ alloy during heating with alternating electric current
Kulyk Yurii
- P.043 • Surface tension of equiatomic InBiGaSn and InBiGaSnCu metallic melts
Bilyk Roman
- P.044 • Magnetic properties of thin films of the Gd-Fe system
Prysyazhnyuk Viktor
- P.045 • Structural features of thermal expansion of metallic melts
Liudkevych Ulyana
- P.046 • Phase behavior of a binary mixture with Curie-Weiss interaction
Dobush Oksana
- P.047 • Flooding processes in the Gd-Fe system
Prysyazhnyuk Viktor